

The PLAN BOOK

1925 Industrial
Lighting Activity

Secretary of Labor J. J. Davis Urges Program for Better Industrial Lighting

DEPARTMENT OF LABOR

OFFICE OF THE SECRETARY

WASHINGTON

April 21, 1925.

Mr. M. H. Aylesworth,
Managing Director,
National Electric Light Assn.,
29 West 89th St. New York.

My dear Mr. Aylesworth:

I regret that it will not be possible for me to accept your very courteous invitation to attend the Forty-Eighth Annual Convention of the National Electric Light Association, at San Francisco, June fifteenth. Your Association speaks for a very important industry and can well be proud of the achievements of its nearly half a century of life.

A well lighted institution is generally a prosperous institution. A poorly lighted, dingy factory does not inspire the workman to do his best. Neither does it tend toward satisfactory production or efficient management. In fact, poor lighting has a depressing effect upon all of us, whether it be in the home, factory, office, store, or on the streets and highways of our towns and cities.

I would go so far as to say that in a manufacturing establishment in which the very best lighting facilities are lacking, not only will the best effort of the workers and management be affected but the stockholders will not entirely escape the depression when they receive their dividends.

From a strictly humanitarian point of view, good, clear and steady light in a factory contributes largely toward the lessening of industrial accidents, saves eye strain and its attendant ills, and tends to make management and workers comfortable and cheerful.

The wise employer knows that a well ordered, lighted factory means better work and increased production, the prime factors in developing a satisfied personnel and a prosperous business.

I hope that your Convention will be a most successful one and that the National electric light and power industry may, through the National Electric Light Association, carry on the well organized program for better industrial conditions through the use of electric light and power.

Sincerely yours,

James J. Davis
Secretary of Labor.

The PLAN BOOK
of the
INDUSTRIAL LIGHTING
ACTIVITY

A COMPLETE PLAN OF ORGANIZA-
TION OF LOCAL COMMUNITIES
FOR THE OPERATION OF A NA-
TION-WIDE CAMPAIGN TO IN-
CREASE SALES AND PROFITS ON
INDUSTRIAL LIGHTING
INSTALLATIONS



INDUSTRIAL LIGHTING COMMITTEE

NATIONAL ELECTRIC LIGHT ASSOCIATION

29 WEST 39TH STREET

NEW YORK

FUNCTIONS OF NATIONAL AND LOCAL GROUPS



NATIONAL ORGANIZATION

THE National Activity will be conducted by the Industrial Lighting Committee of the National Electric Light Association, with J. F. BECKER as Chairman. The National Committee will function as follows:

1. It will prepare a complete plan for carrying out the Local and National activities.
2. It will raise the funds necessary to the operation of the National activity and to the servicing of the Local activity.
3. It will carry on a campaign of Industrial Lighting advertising in National, Business, Management and Class Magazines.
4. It will appoint Geographic Chairmen, who will endeavor to obtain the co-operation of local lighting interests in conducting a local activity.
5. It will furnish sales, lectures and advertising suggestions to assist local groups in their campaigns.
6. It will provide field men to explain the activity to the Geographic Chairmen and to assist them in organizing local committees.

LOCAL ORGANIZATION

THE Local Activity will be conducted by a local organization such as the now existing Electrical League, or a committee appointed for the purpose. The functions for the Local group will be as follows:

1. It will prepare the prospect list of Industrial plants now having improper lighting.
2. It will carry a direct-mail advertising campaign to this prospect list.
3. It will install an industrial lighting exhibit, a model factory, or arrange to make trial installations.
4. It will advertise in the local newspapers to tie with the advertising campaign of the National Committee.
5. It will raise a fund, either by a league or from the various branches of the local industry, in order to carry out these activities.
6. It will allocate possibilities for industrial lighting equipment sales to those commercial organizations supporting the local activity who are qualified to do this work.

FUNCTIONS OF EACH BRANCH OF ELECTRICAL INDUSTRY

MANUFACTURER: To finance the national activity and train his salesmen and engineers so that they can assist local groups in carrying out the campaign.

CENTRAL STATION: To take the lead in local organization activity, both in finance and personnel and to provide service to patrons changing their lighting systems.

ELECTRICAL JOBBER: To assist in local organization activity with money and personnel and to carry sufficient stock of lighting equipment for new installation in factories.

ELECTRICAL CONTRACTOR: To assist local organization activity with money and personnel and to install better factory lighting equipment when plant is sold on changing its lighting.

THE NATIONAL PLAN

AN Industrial Lighting Committee has been formed in the Commercial Section of the National Electric Light Association to conduct a nationwide activity in industrial plants in an effort to better industrial lighting conditions. This activity will be conducted by representatives of all branches of the electrical industry and will have for its objects the following fundamentals:

1. To organize an energetic, direct selling campaign to industrial plants on proper lighting installations.
2. To plan and put to work an advertising and promotional effort which is unified, and thus more effective than individual efforts.
3. To go out and sell proper industrial lighting.

Statistics show that there are 30,000,000 factory sockets, of which not more than 5,000,000 are equipped with proper reflectors. This indicates a tremendous market for the selling of proper industrial lighting equipment, conduit, wiring devices, etc.

Many manufacturing plants have proper lighting equipment installed and find that proper lighting pays, and with this information in hand it will not be difficult to sell the equipment in factories not properly lighted.

The Industrial Lighting Committee has raised sufficient funds from manu-

facturers of industrial lighting equipment, lamps and electric devices to formulate and carry out a program for selling industrial lighting equipment.

In addition to formulating a complete plan, the Industrial Lighting Committee will carry on a campaign of industrial lighting advertising in National, Business, Management, and Class magazines; will furnish sales, lectures and advertising suggestions to assist local groups in carrying out their campaign and will provide salesmen to explain the activity and assist in organizing the local groups.

In each geographic division of the National Electric Light Association, a Geographic Chairman and a committee will be appointed to further explain the activity and assist the local groups in their activities.

The definite services offered by the Industrial Lighting Committee are shown in this Plan Book and can be used in part or in full by the local communities.

The activity has been prepared so that it will be applicable to communities of any size. The cost of carrying out the activity in a local community will depend upon the size of the community, the number of industrial plants located in the community and the extent to which participation is made in the campaign.

A map of the United States divided into 12 major regions. The regions are labeled as follows:

- North West**: Includes Washington, Oregon, and California.
- North Central**: Includes Idaho, Montana, Wyoming, North Dakota, and South Dakota.
- North East**: Includes New England, Pennsylvania, New York, and New Jersey.
- South West**: Includes Arizona, Nevada, and Utah.
- South Central**: Includes Texas, Oklahoma, and Kansas.
- South East**: Includes Florida, Georgia, and Alabama.
- Pacific Coast**: Includes California, Oregon, and Washington.
- Rocky Mountain**: Includes Colorado, Wyoming, and Utah.
- Great Lakes**: Includes Michigan, Indiana, Ohio, and Wisconsin.
- Middle West**: Includes Illinois, Missouri, and Iowa.
- Central**: Includes Minnesota, Wisconsin, and Illinois.
- New England**: Includes Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island.

The map also shows the Great Lakes, the Atlantic Ocean, and the Gulf of Mexico.

GEOGRAPHIC CHAIRMEN

THE Chairman is appointing in each geographic division of the National Electric Light Association a geographic chairman, who will direct the activities of the campaign in his division. The geographic chairmen will be leaders of the electrical industry in their districts and will be of great help to the local communities.

By reason of having such a man in their vicinity, the local leagues or organizations will be able to quickly organize for their

activity. The geographic chairmen will have thorough knowledge of the Industrial Lighting activity and will be in constant touch with the chairman of the Industrial Lighting Committee.

It will be their duty to explain by letter or by personal call the details of the plan and endeavor to get as many communities in the division as possible, active in the campaign.

GEOGRAPHIC CHAIRMEN OF THE INDUSTRIAL LIGHTING COMMITTEE

COMMERCIAL SECTION

NATIONAL ELECTRIC LIGHT ASSOCIATION

New England Division

J. DANIELS, The Edison Electric Illuminating Co. of Boston, Boston, Mass., comprising states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Middle Atlantic Division

R. H. TILLMAN, Consolidated Electric Light & Power Company, Baltimore, Md., comprising states of Delaware, District of Columbia, Maryland and Virginia.

Eastern Division

C. A. MUSSON, United Electric Light & Power Co., New York City, N. Y., comprising states of New Jersey, New York and Pennsylvania.

East Central Division

H. W. DERRY, Union Gas & Electric Co., Cincinnati, Ohio, comprising States of Kentucky, Ohio and West Virginia.

Great Lakes Division

OLIVER HOGUE, The Commonwealth Edison Co., Chicago, Ill., comprising states of Illinois, Indiana, Michigan and Wisconsin.

Southwestern Division

R. I. BROWN, Arkansas Central Power Co., Little Rock, Ark., comprising states of Arkansas, Louisiana, Mississippi, Oklahoma and Texas.

Southeastern Division

H. B. WHITEMAN, The Tennessee Electric Power Co., Chattanooga, Tenn., comprising states of Alabama, Florida, Georgia, North Carolina, South Carolina and Tennessee.

North Central Division

H. E. YOUNG, Northern States Power Co., Minneapolis, Minn., comprising states of Minnesota, North Dakota and South Dakota.

Middle West Division

Iowa, Kansas, Missouri and Nebraska.

To be appointed.

Rocky Mountain Division

C. E. ADDIE, Public Service Co. of Colorado, Denver, Colo., comprising states of Colorado, New Mexico and Wyoming.

Northwest Division

J. F. ORR, Idaho Power Company, Boise, Idaho, comprising states of Idaho, Montana and Utah.

H. J. GILLE, Puget Sound Power & Light Co., Seattle, Wash., comprising states of Oregon and Washington.

Pacific Coast Division

A. M. FROST, San Joaquin Light & Power Co., Fresno, Calif., comprising states of Arizona, California and Nevada.

Canadian Division

R. H. MATHER, The Shawinigan Water & Power Company, Montreal, Quebec, Canada.

SCHEDULE OF ADVERTISING OF INDUSTRIAL LIGHTING COMMITTEE WITH SUGGESTIONS OF DATE OF MAILING BROADSIDES AND PLACING NEWSPAPER ADVERTISING

AUGUST, 1925		NOVEMBER, 1925	
Literary Digest 22	Local Committee orders material and prepares for campaign.	Forbes 1	Local Committee places Newspaper Ad. No. 5, November 5; Newspaper Ad. No. 6, November 20; solicits industrial plants with personal calls.
Nation's Business 25		Factory 1	
Industrial Management 28		Industrial Engineer 1	
	Industry Illustrated 1		
	Foundry 1		
	Inland Printer 1		
	Iron Trade Review 5		
	Automotive Industries 5		
	Manufacturers Record 5		
	Paper Trade Journal 5		
	Iron Age 5		
	Textile World 7		
	Hides and Leather 7		
	American Lumberman 7		
	Literary Digest 7		
	Furniture Mfg. and Artisan . . 15		
	Nation's Business 25		
	Industrial Management 28		
SEPTEMBER, 1925		DECEMBER, 1925	
Forbes 1	Local Committee mails Broadside No. 1, September 16; places Newspaper Ad. No. 1, September 17; Broadside No. 2, September 29; places Newspaper Ad. No. 2, September 30.	Forbes 1	Local Committee places Newspaper Ad. No. 7, December 10; solicits industrial plants with personal calls.
Factory 1		Factory 1	
Industrial Engineer 1		Industrial Engineer 1	
Industry Illustrated 1		Industry Illustrated 1	
Foundry 1		Foundry 1	
Inland Printer 1		Inland Printer 1	
Iron Trade Review 3		Iron Trade Review 3	
Automotive Industries 3		Automotive Industries 3	
Manufacturers Record 3		Manufacturers Record 3	
Paper Trade Journal 3		Paper Trade Journal 3	
Iron Age 3		Iron Age 3	
Textile World 5		Textile World 5	
Hides and Leather 5		Hides and Leather 5	
American Lumberman 5		American Lumberman 5	
Furniture Mfg. and Artisan . . 15		Literary Digest 12	
Literary Digest 19	Furniture Mfg. and Artisan . . 15		
Nation's Business 25	Nation's Business 25		
Industrial Management 28	Industrial Management 28		
OCTOBER, 1925		JANUARY, 1926	
Forbes 1	Local Committee mails Broadside No. 3, October 7; places Newspaper Ad. No. 3, October 8. Letter and Better Factory Lighting Pays, October 20. Adv. No. 4, October 21. October 23, begin intensive personal solicitation.	Industrial Engineer 1	Local Committee solicits industrial plants with personal calls.
Factory 1		Foundry 1	
Industrial Engineer 1		Inland Printer 1	
Industry Illustrated 1		Iron Trade Review 7	
Foundry 1		Automotive Industries 7	
Inland Printer 1		Manufacturers Record 7	
Iron Trade Review 1		Paper Trade Journal 7	
Automotive Industries 1		Iron Age 7	
Manufacturers Record 1		Textile World 2	
Paper Trade Journal 1		Hides and Leather 2	
Iron Age 1		American Lumberman 2	
Textile World 3		Furniture Mfg. and Artisan . . 15	
Hides and Leather 3			
American Lumberman 3			
Literary Digest 10			
Furniture Mfg. and Artisan . . 15			
Nation's Business 25			
Industrial Management 28			

THE LOCAL PLAN

THE National Campaign is the *first half* of the activity to better the lighting of industrial plants, but will be of little avail if the electrical interests of the town or city do not follow the plan and carry out the *second half* of the activity. The local community does not necessarily have to go through all of the steps laid down by the Industrial Lighting Committee, but should formulate some plan that will best fit the needs of the locality. The Committee has endeavored to prepare a plan that is flexible, so that all or part can be utilized by the local electrical interests, as desired.

The campaign in magazines carried on by the Committee will undoubtedly stimulate the interest of industrial plant executives who, heretofore, have not paid a great deal of attention to their factory lighting, and intensive selling locally will surely induce the plant executives to listen to the story of better factory lighting.

In order to participate in the campaign, the electrical interests in each community should form either a local committee to handle the activity or, if an electrical league is already in existence, it could logically carry out this campaign.

After this has been decided upon, it will

be necessary to make up a list of industrial plants having improper lighting, which will be the bogey for the activity. Small plants, garages, and other places using industrial lighting equipment should be included in this list, as these are the companies who are usually neglected but who offer an excellent field on account of their being so numerous.

To this group the direct-mail campaign should be directed. Advertisements should

be run in the local newspapers, as all this will tie in with the advertising of the Committee. The executives of these plants can be invited to a demonstration, at which the advantages of better industrial light-

ing can be explained by trained engineers.

All of this publicity work will undoubtedly bring inquiries from the industrial plants, and these interested ones can be visited and given a personal selling-talk with the use of the Brayco Projector. The Field Notes can be filled in at this time, and from them the specifications for the relighting of the factory can be made. If the local community has no means of making specifications from Layout Sheets, this work should be allocated to Mazda lamp or reflector manufacturers qualified to handle it.

READ CAREFULLY THE DETAILS OF THE OPERATION OF THE LOCAL ACTIVITY WHICH APPEAR ON THE FOLLOWING PAGES

SERVICES OF NATIONAL COMMITTEE

ON the following pages, the services which will be supplied by the National Committee are illustrated and described. The plan has been made entirely flexible, so that the local committees may use it in whole or in part, as they consider most ad-

visable. However, the greatest success will be obtained when all phases of the plan are utilized.

Special care should be taken to order the correct amount of material for local use. An order form is provided with the Plan Book.

DIRECT MAIL CAMPAIGN

What the Campaign Is

The Industrial Lighting Committee has prepared three attractive broadsides which, if placed in the hands of industrial plant executives, will aid greatly in interesting them in better lighting for their factories. These broadsides, printed in two colors, are entitled respectively, "Poor Light Never Made Good Work," "Where Profits Grow Highest," and "52% Per Annum From Good Lighting." They point out in a simple, direct manner that good lighting in factories results in lower manufacturing costs and increased production and also offer the services of lighting experts to assist the factory executives. Illustrations of good and poor lighting in the same shops are shown and statistics are given which prove the statements made.

A direct tie-in with the national advertising is obtained by showing in each broadside one of the advertisements appearing in the *Literary Digest*. To get the service offered in the advertisement, the reader of the folder is invited to return the coupon in the folder for further information on the subject.

A red arrow carries the reader's eye from the advertisement to the coupon.

In addition, there will be available an industrial lighting booklet entitled, "Better Factory Lighting Pays." This publication is of proven worth and will aid greatly in stimulating the interest of the plant executive. It is well illustrated with photographs of shops having good lighting and contains valuable statements by executives, on the economies obtained by the installation of adequate lighting equipment.

Why You Should Use Direct Mail

Manufacturers, retail stores and other agencies having a product to sell have long since learned the value of the direct mail campaign. It is about the surest method of getting a message to the proper person and in many cases succeeds where a salesman will fail. Salesmen often fail to see the proper man—he is out of town—too busy—in a conference—and much money is wasted on unsuccessful calls. The direct mail message gets his attention when he is in a receptive mood and even if he is not prompted to ask immediately for further information he is

more likely to see and listen to the salesman when the latter subsequently calls.

The direct mail campaign offered by the Industrial Lighting Committee is one of the most essential elements in the campaign, and local communities entering the activity should carefully consider its use. Such an activity in itself would be productive of good results and with the extensive advertising campaign planned by the Committee in national, business, management, and class magazines to assist, direct mail will surely be most effective.

How to Use the Campaign

The success of direct mail depends almost entirely upon the care which is used in preparing the mailing or prospect list of manufacturers. The mailing piece must be addressed to an individual rather than to the company and you should be certain that the name of the executive in charge of lighting is on your list. Compiling your mailing list

What National Committee Does:

Supplies three Broadsides, imprinted for 10 or 12 cents a set, according to quantity.
Supplies "Better Factory Lighting Pays," at 10 cents each, imprinted.

What Local Committee Does:

Secures a prospect list.
Sends out direct mail at proper intervals.
Makes a definite sales follow-up.

is really the most important part of the campaign and involves the greatest amount of work. Inasmuch as other phases of the activity are based upon this prospect list, the local committee can well afford to make a

2. Obtain list of industrial plants and names of executives from the local Chamber of Commerce. In addition to the list of members, the secretary can

YOUR OWN LETTERHEAD

YOUR ADDRESS

Dear Sir:

You will be interested in the copy of "Better Factory Lighting Pays," which we are forwarding to you under separate cover, telling of the actual experience of manufacturers who have found that improvement in their lighting conditions has repaid them from a dollars and cents standpoint.

Good Lighting has been found to increase production, decrease accidents, improve sanitation and raise the morale of your employees, all of which means that good lighting saves production costs. These facts have been proven by conclusive tests made in plants similar to yours throughout the country.

This Company maintains a number of lighting experts who will be glad to study your plant and its lighting equipment and, without interrupting or disturbing anyone, will make a survey of your present lighting installation. A complete report will be furnished as to just what changes should be made, if any, to make your lighting as useful and productive as it should be. The report will be definite and specific, based on your factory and no other, and it will be accompanied by actual working blue prints which your electrician can easily follow.

There is, of course, no charge or obligation of any kind for the services of our engineer, nor for his complete report or drawings.

A post card is enclosed which we request you to sign and return to us. The space is provided for you to indicate the time for him to call that would be most convenient, and we believe you will find his call genuinely profitable.

Very truly yours,

YOUR SIGNATURE

*Suggested Letter to Accompany "Better Factory Lighting Pays"
as the Fourth Mailing in the Direct
Mail Campaign*

thorough job of getting the names of prospects. The following methods are suggested for possible use in this connection:

1. Send out representatives of the electric service company to visit every sizable manufacturing plant in the community to obtain the names of the executives in charge of manufacturing, the production managers and the purchasing agents.

probably give you the names of other plants and executives as they will undoubtedly have a prospect list which, combined with the membership list, covers the entire list of industrials in the community.

3. Have the industrial electrical contractors of the community prepare a list of the factories where they have installed light-

ing equipment recently and those in which observation has shown the need of better lighting.

4. Electrical jobbers and district offices or salesmen of manufacturers will be able to supply lists of their customers and prospects in many instances. Each in supplying lists should be asked to give full information on each name where possible.
5. The electric service company probably will have a complete list of industrials whom they are serving which may be of use although there is usually not a great amount of information concerning the plant available in this list.
6. When as many of these methods as possible are used, a master list should then be compiled by checking one list against the other to avoid duplication. Too much stress cannot be laid on the importance of having this list as near perfect as possible as the success of the entire local activity will depend upon the interest aroused among the men whose names appear on the mailing list.

After the list is complete, quantities of the three broadsides and the booklet, "Better Factory Lighting Pays," should be ordered in amounts equal to the number of names on the mailing list. (See order blank which accompanies Plan Book.) This literature should be sent to every name on your list. The cost of the direct mail pieces is so small in proportion to the results which may be obtained that it is worth while to parallel

the effort to several men in the plant, such as the manufacturing executive, the production manager, and the purchasing agent.

Cost of Campaign

Arrangements have been made by the Committee to imprint the name of the local organization on the coupon of the three broadsides so that it can be returned direct to the local group. The local imprint will also be made on the booklet, "Better Factory Lighting Pays." The imprint will be included in the price of the broadsides, which will be ten cents for the set of three in quantities of five hundred or more of each, and twelve cents for the set of three in quantities of 499 and less. The difference in price is caused by the fact that the unit price of imprinting of small quantities is much greater than for large quantities. The Committee is selling the direct mail material at cost and in view of the fact that large quantities must be ordered to give service and low cost with the possibility of a stock on hand at the end of the campaign, it will undoubtedly be obliged to share this cost with the local groups by selling at the prices quoted.

The booklet, "Better Factory Lighting Pays," will be sold, imprinted, at ten cents each regardless of quantity, as the same imprint used on the broadsides can be utilized for the printing of the name of the local organization on this booklet.

After the direct mail broadsides have been received by the local committee, arrangements should be made to mail Broadside No. 1 at the start of the campaign. Under the new postal rates, a 1½-cent stamp must be used for mailing. Clerical facilities should be made available to send out a copy of "Better Factory Lighting Pays" immediately on receipt of a broadside coupon. This inquiry should be followed up immediately by a personal call by one of the salesmen.

Broadside No. 2 should be sent about ten days or two weeks later, and Broadside No. 3 should be mailed after the same interval. When the same time elapses, to those who have not made any inquiry, a letter similar to the one shown on Page 9 should be sent by first-class mail with "Better Factory Lighting Pays" under separate cover, as promised in the letter. Oftentimes a letter will get results where an attractive broadside is overlooked. This depends largely on the temperament of the person to whom it is sent and the method of handling mail in his office.

What Results May Be Expected

The results of this direct mail campaign should not be judged entirely from the number of inquiries which result. As a rule direct mail campaigns are considered successful when a return in inquiries averages from three to five per cent. Inquiries leading to sales to this percentage more than pay for the cost of the direct mail activity.

For the direct mail campaign to be effective, however, it must be followed by intensive sales solicitation. The sending of "Better Factory Lighting Pays" in response to an inquiry should be followed by a visit of a salesman a few days later. He should be prepared to discuss the benefits of good lighting with the prospect and should offer to make

a trial installation, invite the executive to the industrial lighting demonstration, show the Brayco film, "Productive Lighting in Industry," and offer to draw up specifications on how the lighting of the factory should be changed to obtain lower costs and increased production. The services just mentioned are explained in detail later in this Plan Book.

To those on the prospect list who do not respond to the direct mail campaign, a systematic selling campaign should be initiated immediately after the four mailings have been made. This can be done by allocating certain prospects to the salesmen and contractors available for this work and making them responsible for their quota. The division of the sales and installation work among the persons contributing to the local campaign should be decided by the local committee after the prospect list has been made. This is a matter that must be settled by the local organizations, as the Committee is not in a position to determine how this should be done in each instance.

The success of the local activity depends, first, upon the accuracy of the mailing list; and second, upon the sales methods which are used to follow the direct mail campaign. The Industrial Lighting Committee is offering a number of services, described later, which will greatly assist the local committee in its sales efforts, and consideration should be given to their use.

THE NATIONAL ADVERTISING CAMPAIGN

THE advertising program of the Industrial Lighting Committee forms the backbone of the Industrial Lighting Activity and if tied to by the local communities, will be most effective in the promotion of better lighting in the factory.

The national advertising campaign is built around a series of advertisements in the *Literary Digest*, depicting the four industrial lighting economies: Increased Production, Decreased Spoilage, Fewer Accidents, and Less Labor Turnover. It is planned to carry

advertisements in the key publication in each industry, so that the plant executive will see the advertisement in the *Literary Digest*, a management magazine and the class publication of his particular industry.

The advertising campaign will cover a total circulation of 1,500,000, with nearly 8,000,000 insertions, and the Industrial Lighting Committee will endeavor to have published in these magazines articles which will further emphasize the need for better factory lighting.

Group of
Publications
Carrying
Industrial
Lighting
Advertising



Total
Circulation
1,500,000

SCHEDULE OF ADVERTISING BY INDUSTRIAL LIGHTING COMMITTEE

National: LITERARY DIGEST

Business: NATION'S BUSINESS
FORBES

Management: INDUSTRIAL MANAGEMENT
INDUSTRY ILLUSTRATED
MANUFACTURERS RECORD
INDUSTRIAL ENGINEER
FACTORY

Class: IRON AGE
IRON TRADE REVIEW
FOUNDRY
AUTOMOTIVE INDUSTRIES
AMERICAN LUMBERMAN
FURNITURE MFR. AND ARTISAN
TEXTILE WORLD
PAPER TRADE JOURNAL
INLAND PRINTER
HIDES AND LEATHER



Poor lighting increases manufacturing costs—
Good lighting lowers them

Good lighting is as essential to low cost production as up-to-date machines and skilled workers.

Only 15% of all working time is spent under daylight; 25% under artificial lighting.

Yet four of every five plants are poorly lighted. In your plant one of these four?

Good artificial lighting in your plant will give a 15% increase in production or its equivalent in lowered manufacturing costs.

To learn if your plant is properly lighted, get in touch with your local electric service company, electric league or club. Without any obligation to you, they will study your lighting needs and recommend improvements that will effect economies in your plant.

Remember: one 200 watt lamp in proper position on one foot center gives less than 1% of daylight.

INDUSTRIAL LIGHTING COMMITTEE
 NATIONAL ELECTRIC LIGHT ASSOCIATION
 29 WEST 39th STREET
 NEW YORK

Issue of
Aug. 22

Issue of
Sept. 19

Issue of
Oct. 10



Errors breed under poor light—and costs go up!

Good Lighting cuts costs

Good lighting promotes accuracy. Good lighting reduces accidents and decreases spoilage. Good lighting keeps down manufacturing costs.

Yet four of every five plants are poorly lighted—have lighting that makes production costs too high.

Good artificial lighting in your plant will give a 15% increase in production or its equivalent in lowered manufacturing costs.

To learn if your plant is properly lighted, get in touch with your local electric service company, electric league or club. Without any obligation to you, they will study your lighting needs and recommend improvements that will effect economies in your plant.

Remember: one 200 watt lamp in proper position on one foot center gives less than 1% of daylight.

INDUSTRIAL LIGHTING COMMITTEE
 NATIONAL ELECTRIC LIGHT ASSOCIATION
 29 WEST 39th STREET
 NEW YORK



Poor factory lighting steals profits—
Good lighting protects them

Good lighting decreases accidents, reduces spoilage and diminishes labor turnover. Good lighting decreases factory costs. Many authoritative tests prove that!

Yet four of every five plants are poorly lighted—have lighting that makes production costs excessive.

Good artificial lighting in your plant will give a 15% increase in production or its equivalent in lowered manufacturing costs.

To learn if your plant is properly lighted, get in touch with your local electric service company, electric league or club. Without any obligation to you, they will study your lighting needs and recommend improvements that will effect economies in your plant.

Remember: one 200 watt lamp in proper position on one foot center gives less than 1% of daylight.

INDUSTRIAL LIGHTING COMMITTEE
 NATIONAL ELECTRIC LIGHT ASSOCIATION
 29 WEST 39th STREET
 NEW YORK



Poor light puts production to sleep—Good lighting wakes it up

The well-lighted factory is the power-maker in its field—and enjoys costs appreciably lower expenses and work managers in every branch of industry.

Yet four of every five plants are poorly lighted—have lighting that makes production costs excessive.

Good artificial lighting in your plant will give a 15% increase in production or its equivalent in lowered manufacturing costs.

To learn if your plant is properly lighted, get in touch with your local electric service company, electric league or club. Without any obligation to you, they will study your lighting needs and recommend improvements that will effect economies in your plant.

Remember: one 200 watt lamp in proper position on one foot center gives less than 1% of daylight.

INDUSTRIAL LIGHTING COMMITTEE
 NATIONAL ELECTRIC LIGHT ASSOCIATION
 29 WEST 39th STREET
 NEW YORK

Issue of
Nov. 7

Issue of
Dec. 12



Poor light holds down production—makes each job cost more

Good lighting speeds up the work—cuts down the cost of production.

Good lighting maintains the regular rate of production until closing time even on cloudy days or during the late afternoon hours.

Only 15% of all working time is spent under daylight; 25% under artificial lighting.

Yet four of every five plants are poorly lighted. In your plant one of these four?

Good artificial lighting in your plant will give a 15% increase in production or its equivalent in lowered manufacturing costs.

To learn if your plant is properly lighted, get in touch with your local electric service company, electric league or club. Without any obligation to you, they will study your lighting needs and recommend improvements that will effect economies in your plant.

Remember: one 200 watt lamp in proper position on one foot center gives less than 1% of daylight.

INDUSTRIAL LIGHTING COMMITTEE
 NATIONAL ELECTRIC LIGHT ASSOCIATION
 29 WEST 39th STREET
 NEW YORK

These LITERARY DIGEST advertisements, featuring the benefits of proper industrial lighting, will appear in seventeen Business, Management and Class Magazines.

NEWSPAPER ADVERTISING CAMPAIGN

What the Campaign Is

The Industrial Lighting Committee has prepared seven suggested newspaper advertisements to be used by the local organization to tie in with the national advertising of the Committee and to back up the direct mail campaign and the direct sales effort of the local committee.

These advertisements, which are shown on succeeding pages, are similar to the national advertisements and the reader of the latter will immediately identify the local organization with the national movement.

As can be seen, the proposed newspaper campaign is one of the most effective that has ever been used in newspapers by any organization and will undoubtedly attract attention in the local community. It stresses the importance of good lighting in the factory and shows how lower manufacturing costs can be obtained with proper lighting equipment. It points out that a local organization in the community is prepared to tell the story of better factory lighting and draw up plans and specifications for better lighting in the plant of the reader. All of this is offered without charge to the plant executive.

Why You Should Use Newspaper Advertising

In any good campaign to make sales, three methods of selling should be utilized, if full results are to be obtained—that is, direct mail advertising; national magazine and newspaper advertising; and personal solicitation. The first and last of these methods have been explained and their importance stressed. The second element, national magazine and newspaper advertising, is just as important and should be used. The reader of the advertisement will be more

apt to read the direct mail material if he has seen the advertisement in the newspaper and will be more receptive to the salesman when they call.

The effect of the advertising in the national, business, management, and class magazines, which will be done by the Industrial Lighting Committee, will be capitalized if the reader also sees advertisements in his own newspaper. In the advertising of the Industrial Lighting Committee the reader is asked to get in touch with its local electric service company, electrical league or club to get the services offered, while in the newspaper advertisements he is told specifically that the organization that signs the advertisement is prepared to give the service. This is the best kind of tie-in and has been used effectively by manufacturers for a number of years.

How To Use the Newspaper Campaign

First, the local committee must decide approximately how much money can be expended for newspaper advertising. A good way of doing this is to determine what newspapers it is advisable to advertise in and then find out the rates of these newspapers. Mats or plates will be furnished by the Committee in three sizes—A, four columns wide by ten inches deep, B, three columns wide by seven and one-half inches deep, and C, two columns wide by five inches deep.

The ideal campaign would be to use all seven of the newspaper advertisements in the larger size two or three times each during the period of the campaign. Using these seven advertisements once each in the largest size, A, would necessitate purchasing 280 column-inches of space in each newspaper. Using the smaller advertisements

once each would mean that you would have to purchase 157½ column-inches in each newspaper for the size B and 140 column-inches for the size C.

After getting the rates of the newspapers the local committee can then find out what the ideal campaign would cost and decide whether it could be used; or, if the cost is too great, what portion can be used.

The advertisements in the newspaper should be scheduled for appearance with two thoughts in mind: that is, to tie in with the national advertising of the Committee, and with the local direct mail campaign.

Newspaper advertisements should appear on the day that the factory executive receives the broadside and the day that the advertisement appears in the *Literary Digest*. If these three are simultaneous, the greatest good will be obtained. Advertisements appear in the *Literary Digest* in the issues of August 22, September 19, October 10, November 7, and December 12. The first advertisement is the opening gun of the campaign and will be followed by advertisements in business, management, and class magazines which appear early in September. All of the first issues of magazines in which the Committee is advertising will appear before the second advertisement appears in the *Literary Digest* of September 19. This publication will be on the newsstands and in the hands of subscribers on Thursday, September 17, and on this day the first newspaper advertisement should appear and the prospect should receive Broadside No. 1. Broadside No. 2 should be mailed to be in the hands of the prospect about September 30, and a newspaper advertisement should appear on this day. Broadside No. 3 should

be in hands of the prospect on October 8, with a newspaper advertisement that would appear simultaneous with the third *Literary Digest* advertisement of the issue of October 10. The fourth mailing of "Better Factory Lighting Pays" can appear about October 20 together with a newspaper advertisement.

As your salesmen will be making their calls in the period following the direct mail campaign, newspaper advertising should be continued as frequently as possible and at the same time tie in with the *Literary Digest* issues of November 7 and December 12. In the meantime, of course, advertisements will be appearing in the other magazines in accordance with the schedule of the Committee.

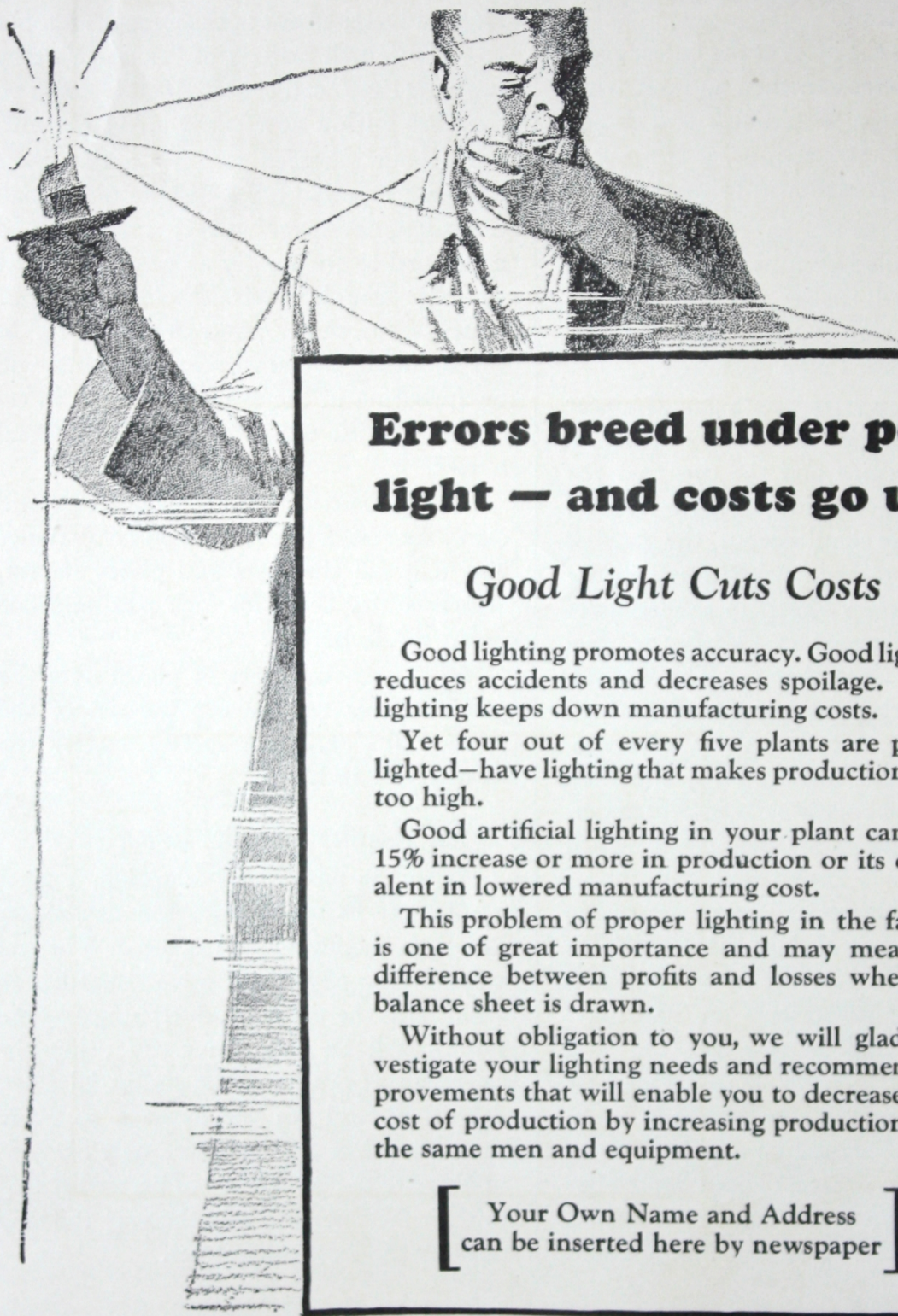
The Industrial Lighting Committee will stand the cost of all art work and engravings and will sell the mats and plates at cost, which is fifty cents for each mat, and one dollar for each plate.

When ordering mats or plates note the total number on the top portion of the order blank and then specify exactly the quantity of each size.

What Results May Be Expected

As in the direct mail campaign, a great number of inquiries from the newspaper campaign should not be expected. The real value of the newspaper advertising lies in tie-in with the national advertising and the results will be cumulative. By using the campaign as outlined, the industrial plant executives will see the message so many times that they will be exceedingly likely to investigate the possibility of better lighting in their factories and lead the way to many sales by the local committees.

SAMPLE ADVERTISEMENT FOR USE IN
LOCAL NEWSPAPERS



**Errors breed under poor
light — and costs go up!**

Good Light Cuts Costs

Good lighting promotes accuracy. Good lighting reduces accidents and decreases spoilage. Good lighting keeps down manufacturing costs.

Yet four out of every five plants are poorly lighted—have lighting that makes production costs too high.

Good artificial lighting in your plant can give 15% increase or more in production or its equivalent in lowered manufacturing cost.

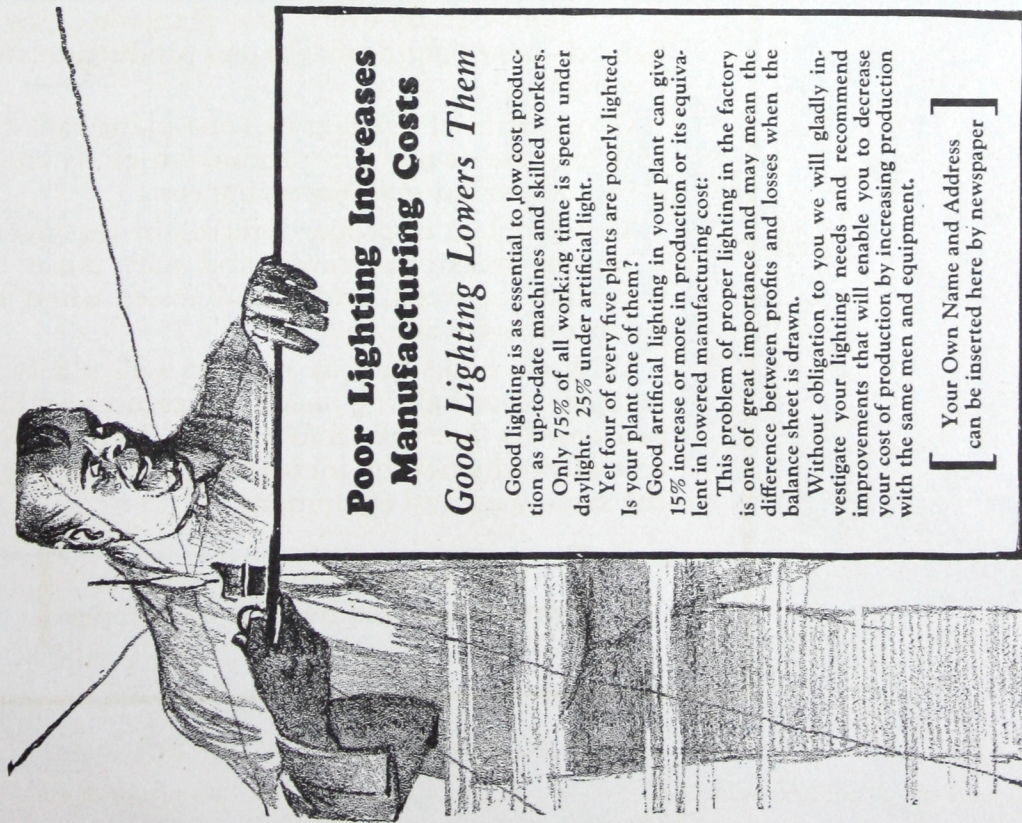
This problem of proper lighting in the factory is one of great importance and may mean the difference between profits and losses when the balance sheet is drawn.

Without obligation to you, we will gladly investigate your lighting needs and recommend improvements that will enable you to decrease your cost of production by increasing production with the same men and equipment.

**[Your Own Name and Address
can be inserted here by newspaper]**

NEWSPAPER ADVERTISEMENT 1-B (3 COL. BY 7½ IN.)

This advertisement also available in sizes I-A, 4 col. by 10 in., and I-C, 2 col. by 5 in. (Type included in mat or plate. Can be changed by local newspaper, if desired.)



Poor Lighting Increases Manufacturing Costs
Good Lighting Lowers Them

Good lighting is as essential to low cost production as up-to-date machines and skilled workers. Only 75% of all working time is spent under daylight. 25% under artificial light.

Yet four of every five plants are poorly lighted. Is your plant one of them?

Good artificial lighting in your plant can give 15% increase or more in production or its equivalent in lowered manufacturing cost.

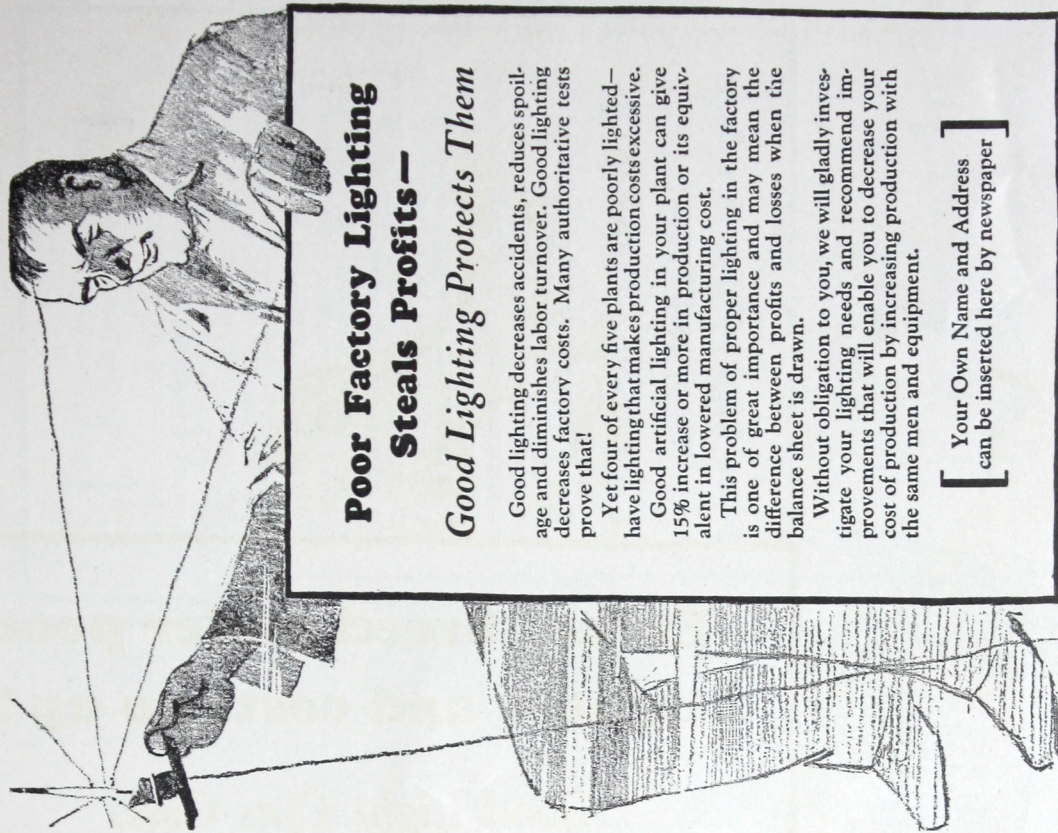
This problem of proper lighting in the factory is one of great importance and may mean the difference between profits and losses when the balance sheet is drawn.

Without obligation to you we will gladly investigate your lighting needs and recommend improvements that will enable you to decrease your cost of production by increasing production with the same men and equipment.

[Your Own Name and Address
 can be inserted here by newspaper]

NEWSPAPER ADVERTISEMENT 2-C (2 COL. BY 5 IN.)

This advertisement also available in sizes 2-A (4 col. by 10 in.), and 2-B (3 col. by 7½ in.)



Poor Factory Lighting Steals Profits—
Good Lighting Protects Them

Good lighting decreases accidents, reduces spoilage and diminishes labor turnover. Good lighting decreases factory costs. Many authoritative tests prove that!

Yet four of every five plants are poorly lighted—have lighting that makes production costs excessive.

Good artificial lighting in your plant can give 15% increase or more in production or its equivalent in lowered manufacturing cost.

This problem of proper lighting in the factory is one of great importance and may mean the difference between profits and losses when the balance sheet is drawn.

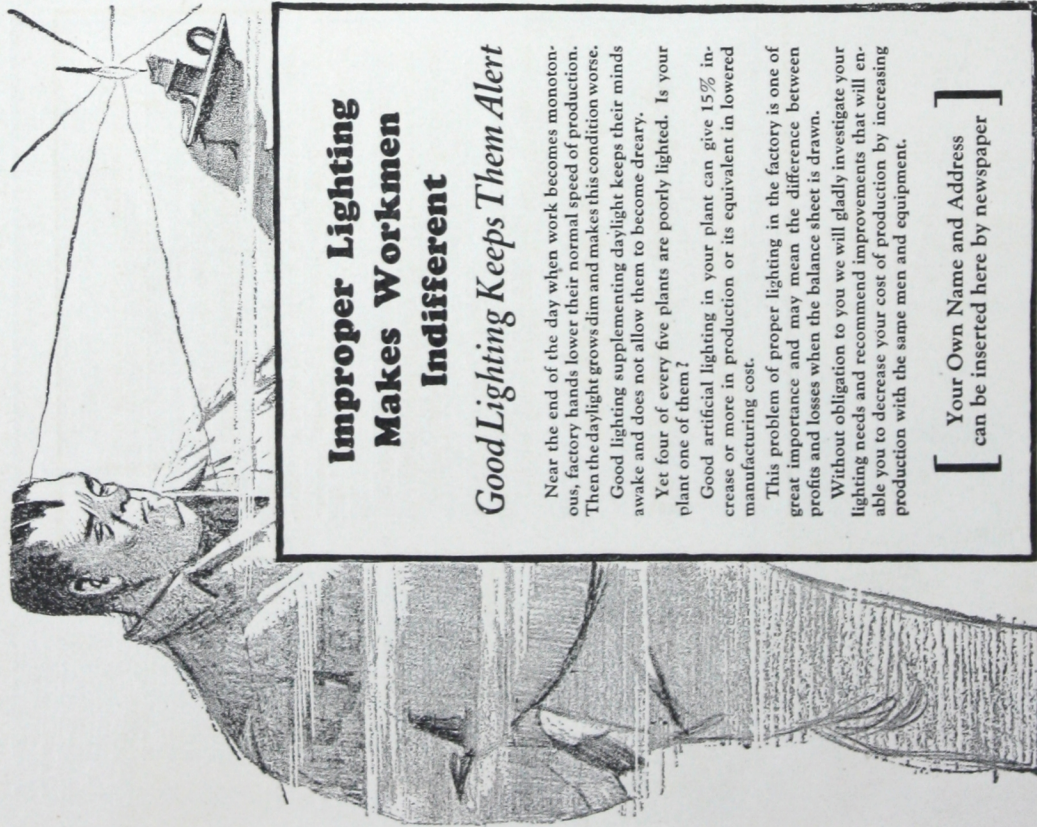
Without obligation to you, we will gladly investigate your lighting needs and recommend improvements that will enable you to decrease your cost of production by increasing production with the same men and equipment.

[Your Own Name and Address
 can be inserted here by newspaper]

NEWSPAPER ADVERTISEMENT 3-C (2 COL. BY 5 IN.)

This advertisement also available in sizes 3-A (4 col. by 10 in.), and 3-B (3 col. by 7½ in.)

SAMPLE ADVERTISEMENTS FOR USE IN LOCAL NEWSPAPERS



Improper Lighting Makes Workmen Indifferent

Good Lighting Keeps Them Alert

Near the end of the day when work becomes monotonous, factory hands lower their normal speed of production. Then the daylight grows dim and makes this condition worse.

Good lighting supplementing daylight keeps their minds awake and does not allow them to become dreary.

Yet four of every five plants are poorly lighted. Is your plant one of them?

Good artificial lighting in your plant can give 15% increase or more in production or its equivalent in lowered manufacturing cost.

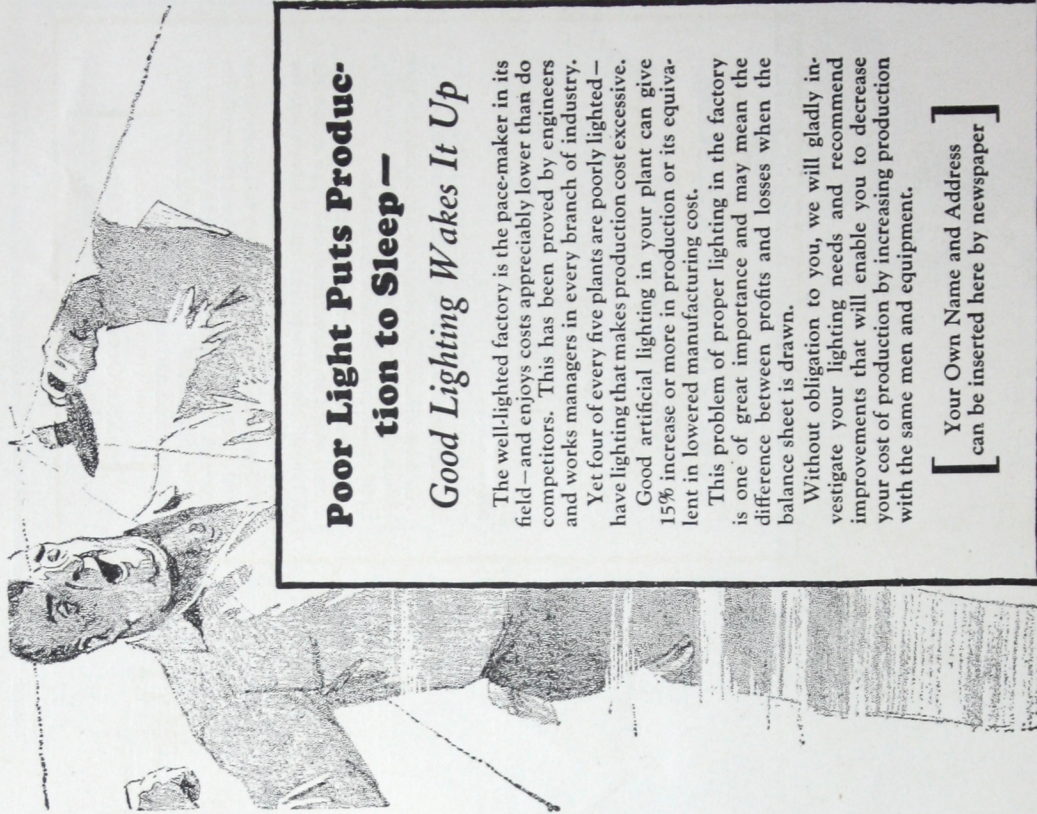
This problem of proper lighting in the factory is one of great importance and may mean the difference between profits and losses when the balance sheet is drawn.

Without obligation to you we will gladly investigate your lighting needs and recommend improvements that will enable you to decrease your cost of production by increasing production with the same men and equipment.

[Your Own Name and Address
can be inserted here by newspaper]

NEWSPAPER ADVERTISEMENT NO. 4-C (2 COL. BY 5 IN.)

This advertisement also available in sizes 4-A, 4 col. by 10 in. and 4-B, 3 col. by 7½ in.



Poor Light Puts Production to Sleep —

Good Lighting Wakes It Up

The well-lighted factory is the pace-maker in its field—and enjoys costs appreciably lower than do competitors. This has been proved by engineers and works managers in every branch of industry.

Yet four of every five plants are poorly lighted—have lighting that makes production cost excessive.

Good artificial lighting in your plant can give 15% increase or more in production or its equivalent in lowered manufacturing cost.

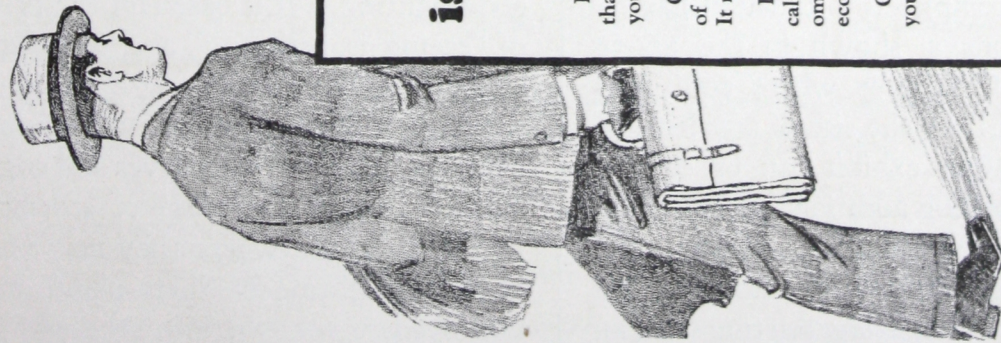
This problem of proper lighting in the factory is one of great importance and may mean the difference between profits and losses when the balance sheet is drawn.

Without obligation to you, we will gladly investigate your lighting needs and recommend improvements that will enable you to decrease your cost of production by increasing production with the same men and equipment.

[Your Own Name and Address
can be inserted here by newspaper]

NEWSPAPER ADVERTISEMENT NO. 5-C (2 COL. BY 5 IN.)

This advertisement also available in sizes 5-A, 4 col. by 10 in. and 5-B, 3 col. by 7½ in.



Our engineer is at your service— without cost

He has facts and figures that will convince you that proper lighting in your factory will decrease your production cost.

Good lighting has been known to effect a saving of 15% at a cost of only 1% of the annual payroll. It may be even more effective in your plant.

It won't cost you a cent to have our engineer call and inspect your plant and later make recommendations for putting your plant on a more economical production basis.

Our engineer is available for the asking. Make your request for his services NOW.

[Your Own Name and Address
can be inserted here by newspaper]

NEWSPAPER ADVERTISEMENT NO. 6-C (2 COL. BY 5 IN.)

This advertisement also available in sizes 6-A, 4 col. by 10 in. and 6-B, 3 col. by 7½ in.



Poor Light Holds Down Production—Makes Each Job Cost More Good Lighting Cuts Costs

Good lighting maintains the regular rate of production until closing time, even on cloudy days or during the late afternoon hours.

Only 75% of all working time is spent under daylight; 25% under artificial light.

Yet four of every five plants are poorly lighted—have lighting that makes production costs excessive.

Good lighting in your plant can give a 15% increase in production or its equivalent in lowered manufacturing cost.

This problem of proper lighting in the factory is one of great importance and may mean the difference between profits and losses when the balance sheet is drawn.

Without obligation to you, we will gladly investigate your lighting needs and recommend improvements that will enable you to decrease your cost of production by increasing production with the same men and equipment.

[Your Own Name and Address
can be inserted here by newspaper]

NEWSPAPER ADVERTISEMENT NO. 7-C (2 COL. BY 5 IN.)

This advertisement also available in sizes 7-A, 4 col. by 10 in. and 7-C, 3 col. by 7½ in.

THE LIGHTING DEMONSTRATION

What the Demonstration Is

Every community taking part in the campaign should have a demonstration of proper industrial lighting, to which the executives and plant engineers of industrial plants can be invited. A floor space twenty feet by thirty feet with a twelve-foot ceiling will accommodate the exhibition covered by the plan illustrated on page 21. A typical ex-

❖ obsolete, antiquated installation and leading up to examples of modern practice. Practical demonstrations show the necessity of using reflecting equipment, the importance of correct mounting and spacing, diffusion, and higher intensities.

Why You Should Use a Demonstration

The purpose of the demonstration is to actually show prospects the advantages of



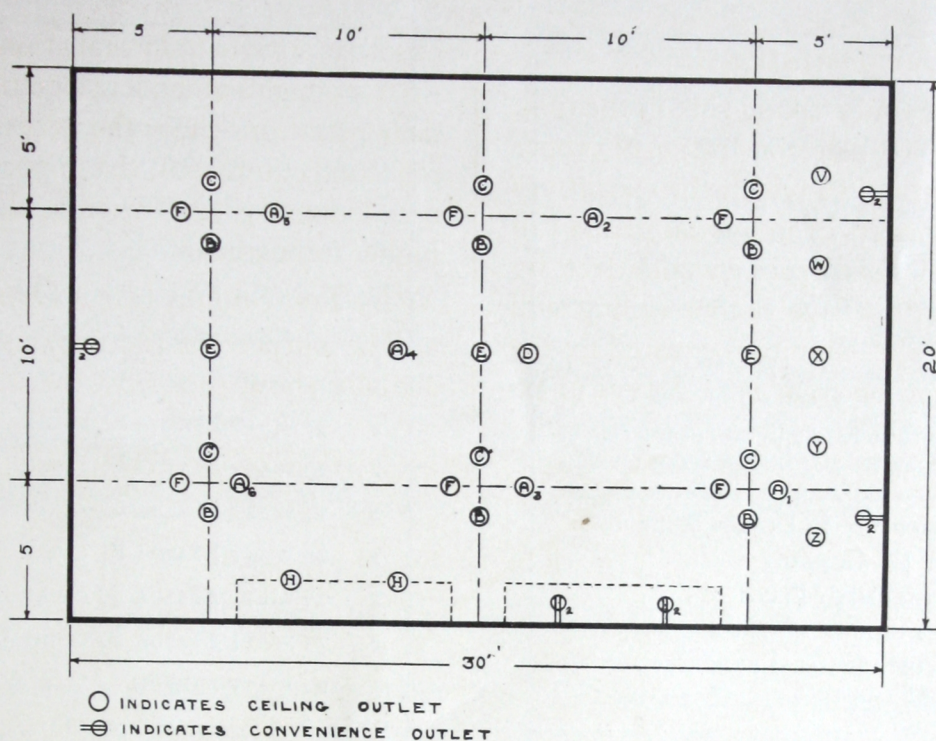
A Typical Exhibit of Demonstration for Better Factory Lighting

ample of the completed installation having these dimensions is shown in the above illustration. Of course where additional room is available or the size of any locality warrants, a larger exhibit can be erected merely by installing additional units carrying out the same symmetrical arrangements.

The various systems illustrate right and wrong methods of lighting, starting with an

❖ good lighting. It is based on the principle of "seeing is believing" and furnishes the opportunity for comparing and discussing various combinations of lighting equipment. You will find plant executives and engineers anxious to take advantage of a demonstration of this kind where they may visualize how the lighting of their plants may be improved.

PLAN FOR DEMONSTRATION



SYSTEM	NUMBER OF UNITS	LAMPS	TYPE OF REFLECTOR	REMARKS
A	6	Miscellaneous See Note 2	Miscellaneous or none	Drop cords removable at connectors 7 feet above floor
B	6	200 watt Mazda C Clear	RLM Standard Dome	Reflectors raised by strings to uncover lamps
C	6	200 watt Mazda C White Bowl	RLM Standard Dome	--
D	1	1000 watt Mazda C Clear	RLM Standard Dome	Mount close to ceiling
E	3	300 watt Mazda C Daylight	RLM Standard Dome	Complete units raised by strings (5 feet to 10 feet above floor)
F	6	300 watt Mazda C Clear	Enclosing Globe	--
H	2	75 watt Mazda C All White	RLM Standard Dome	Mount 4 feet above top of bench
V, W, X, Y, Z	5	Miscellaneous,	See Note 3	Sample exhibition units

NOTE 1 The units in systems B, C, E and F, should be mounted 9 feet above floor. These four systems should be controlled by dimmer.

NOTE 2 A1—150 watt, Mazda C clear lamp with key socket (5' 6" above floor); A2—25 watt Mill Type clear lamp in tin cone reflector (5'); A3—120 watt Carbon lamp (5' 6"); A4—100 watt Mazda B clear lamp in flat tin reflector (6'); A5—25 watt Mazda B lamp (5' 6"); A6—40 watt Mazda B clear in battered tin shade (5').

NOTE 3 V—200 watt Mazda C clear lamp in deep bowl reflector; W—200 watt Mazda C clear lamp in glassteel diffuser; X—500 watt Mazda C clear lamp in Color Matching Unit; Y—200 watt Mazda C lamp in Holophane No. 621; Z—150 watt Mazda C clear lamp in Holophane Vapor-proof No. 2328. Mount these units 7' 6" above floor.

NOTE 4 Divide the exhibit longitudinally and paint one-half to represent a modern well-maintained plant, with white ceiling and upper walls, a dado of medium buff 5 feet high and with white sanitary corners. The other half of the ceiling should be a dirty gray with the side walls almost black and smudged with hand marks to represent a neglected interior.

SUMMARY OF EQUIPMENT FOR LIGHTING DEMONSTRATION

FITTINGS, WIRING, CONTROL EQUIPMENT, ETC.

- 11 MEDIUM BASE BRASS SHELL SOCKETS
- 5 CEILING PULL SWITCHES
- 5 DOUBLE WALL RECEPTACLES
- 1 MEDIUM BASE BRASS SHELL KEY SOCKET
- 1 WARD LEONARD No. SRD 150 DIMMER FOR WALL MOUNTING
- 1 CONTROL PANEL (8 CIRCUITS WITH 15 AMPERE FUSES AND MAIN SWITCH WITH 60 AMPERE FUSES)
- 600-700 FEET No. 14 DUPLEX WIRE
- 500 FEET 1/2" CONDUIT
- 6 ATTACHMENT PLUGS
- 6 FOOT CANDLE METERS
- 2 ADJUSTABLE ARM BRACKETS FOR LOCAL LIGHTING

LAMPS

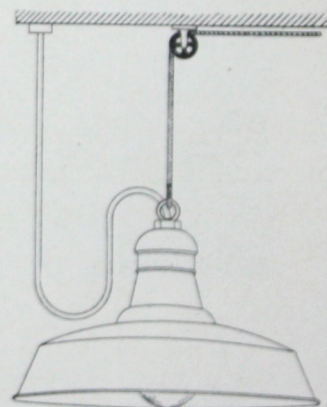
- 9 200 WATT MAZDA C, CLEAR
- 6 200 WATT MAZDA C, WHITE BOWL
- 6 300 WATT MAZDA C, CLEAR
- 3 300 WATT MAZDA C, DAYLIGHT
- 1 1000 WATT MAZDA C, CLEAR
- 1 500 WATT MAZDA C, CLEAR
- 2 150 WATT MAZDA C, CLEAR
- 1 100 WATT MAZDA B, CLEAR
- 2 75 WATT MAZDA C, ALL WHITE
- 1 40 WATT MAZDA B, CLEAR
- 1 25 WATT MAZDA B, CLEAR (S-17)
- 4 25 WATT MAZDA B, CLEAR (P-19)
- 1 120 WATT CARBON

REFLECTORS

- 6 200 WATT RLM (2 1/4" HEEL)
- 6 200 WATT RLM (COMPLETE WITH SOCKET)
- 3 300 WATT RLM (COMPLETE WITH SOCKET)
- 1 1000 WATT RLM (COMPLETE WITH SOCKET)
- 2 75 WATT RLM (COMPLETE WITH SOCKET)
- 6 16" ENCLOSING GLASS GLOBES (COMPLETE WITH HOLDER AND SUSPENSION CHAIN)
- 1 200 WATT DEEP BOWL PORCELAIN ENAMEL STEEL (COMPLETE WITH SOCKET)
- 1 200 WATT GLASSTEEL DIFFUSER (COMPLETE WITH SOCKET)
- 1 MACBETH DAYLIGHT LAMP P30 (OR EQUIVALENT)
- 1 HOLOPHANE No. 621
- 1 HOLOPHANE VAPOR-PROOF No. 2328 WITH BENJAMIN FITTING No. 1515
- 1 TIN CONE (2 1/4" HEEL)
- 1 BATTERED, WORN-OUT SHADE
- 2 DEEP BOWL REFLECTORS (FOR MILL TYPE LAMP)
- 1 LOCAL LIGHTING UNIT (FOCUSING SPOT)
- 1 FLAT TIN SHADE (2 1/4" HEEL)



Method of Raising Reflector in System "B"



Method of Raising Unit in System "E"

How to Use the Demonstration

The accompanying information should be sufficient for an electrical contractor to erect the exhibit. Lectures covering typical talks to accompany demonstrations will be furnished, together with an outline which the speaker can follow. To this basic arrangement may be added the graphic wall charts, blackboard sketches, table demonstrations and films or lantern slides if they are available.

Cost of Demonstration

The cost of the demonstration will depend

entirely on local conditions and especially upon the amount of equipment which can be borrowed. The list of material will facilitate the making of an estimate to determine the necessary expense involved.

What Results Can Be Expected

The use of the demonstration will not only serve to arouse interest but will develop leads that can be followed up with trial installations and surveys. When convincingly operated, demonstrations should be the means of promoting the idea of better lighting and actually make sales.

INVITATION TO DEMONSTRATION

No matter how adequate and efficiently prepared, the Demonstration cannot be a success unless you have aroused sufficient interest in factory executives to induce them to attend.

The best way to secure a representative large gathering is to send especially prepared invitations on good stock to the factory executives announcing the time and place of the demonstration.

The National Committee has prepared invitations of this kind which will be imprinted for the local committees, giving the time, place and date of the local demonstration.

The importance of using these invitations cannot be over estimated. They should be ordered on the special order blank inserted in the Plan Book far enough in advance of the date of the local demonstration to allow ample time for imprinting. Shipments will be made within four days after receipt of order.

These invitations are on special grade of invitation stock and will be $4\frac{1}{4} \times 5\frac{1}{2}$ in size (see sample enclosed in The Plan Book). The cost, including imprinting and envelopes, in quantities of less than 300 will be 5 cents each. If 300 or more are ordered, the cost will be 3 cents each.

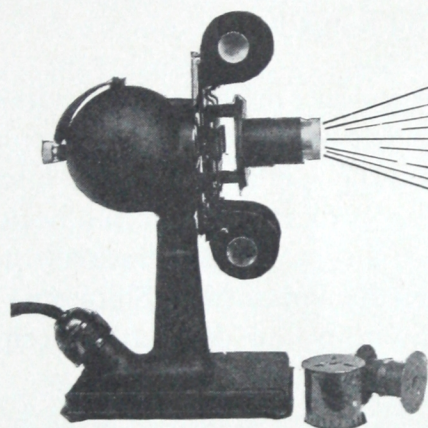
THE PORTABLE FILM PROJECTOR

What the Brayco Portable Projector Is

The Brayco Portable Projector illustrated below is recommended in place of a lantern-slide projector. It is a light and compact machine which uses a succession of pictures on a continuous film, instead of lantern slides.

The projector complete weighs four pounds, is 10 1/2 inches high and can be carried in a brief-case. The light source consists of a 21-candlepower automobile headlight lamp, renewable from any local dealer's stock. A resistance contained in the extension cord permits the lamp to be operated from a 110-120-volt light-

The Brayco Portable Projector



ing socket. It projects pictures in size from 4 x 5 1/2 inches to 8 x 11 feet on a light wall or screen. Best results are with throws of ten to twenty feet.

Pictures can be changed as rapidly as desired by pressing a small trigger at the side. The film, being fireproof, complies with all insurance regulations. A switch controlling the lamp is located in the base.

Why You Should Use It

Pictures, cartoons, and charts are the most effective way of putting the message across to the executive in his own office. This machine is admirably suited for this purpose as it may be carried easily and the picture can be thrown on the office wall. "Before-and-after" photographs of lighting installations are most convincing arguments. A picture shows at a glance what consti-

Think of the probability of accident in this plant—



—contrasted with the reduced accident hazard when the plant was well lighted.



Neither the human eye nor the camera can take pictures with unshielded lights in the field of view



Efficient reflectors increase the illumination on the work and insure Easy, Accurate and Comfortable vision



Gloom and Glare the arch enemies of good workmanship



Cheerfulness and Safety from proper lighting. The workman's best allies



tutes good lighting, whereas even a vivid description may be vague.

The film, "Productive Lighting in Industry," itself has been carefully prepared by a number of lighting authorities and the data and photographs contained therein are the last word in industrial lighting information.

No experience is necessary in operating the projector and practically no time is consumed in setting up. The lecturer, or salesman carrying his own machine, avoids the trouble usually encountered in borrowing a stereopticon machine locally, as is usually the case when lantern slides are used. The Brayco Projector is much smaller and considerably lighter than any portable lantern slide projector now on the market.

Subtitles on the film make the lecture self-explanatory. With this equipment it is possible to go to a prospect's office and project pictures on the wall almost as quickly and easily as to take a book out of a brief-case and leaf through the photographs.

It is not necessary to have the room absolutely dark unless the large size (eight feet by eleven feet) picture is thrown on the screen. A picture this size will accommodate an audience of three hundred.

How to Use It

The lecture will be suitable for Rotary, Kiwanis, or similar club meetings, as well as individual talks in the office of factory managers, purchasing agents, etc. For these individual talks, a picture four by five and one-half inches may be thrown on the wall. In this case it is not necessary to darken the room.

The pictures, cartoons, subtitles, and charts total seventy-five frames and, running through rapidly, take about twelve minutes to show. A companion story giving more detailed facts about the pictures and charts illustrated on the film will be furnished with

each machine. The lecture, if given in detail, requires thirty to forty-five minutes.

The novelty of the projector itself commands attention.

Cost

Arrangements have been made whereby the local committees can rent these machines for use in this campaign. The Industrial Lighting Committee has obtained the special purchase price of \$35 each for the machines with case, and when the local committee orders a machine it will be billed at this amount. If the machine has served its local purpose and is returned in good condition, a rebate will be given to the local committee which will be the difference between the purchase price and \$10 for each of the first two months and \$5 for each month thereafter that the machine is retained. If the machine is kept for five months it will naturally be the property of the local committee.

The film is sold outright at a cost of \$2.50. No credits will be given for the return of used films. This means that the local committee can get a machine and film for a month's trial use for a cost of only \$12.50.

Results You Can Expect

Next to an actual demonstration of industrial lighting installations, this is probably the best method of pictorially showing the results that can be effected through the use of proper lighting. Many good leads can be obtained from the questions and discussion following the lecture. Usually a direct request for a lighting survey is received from one or more industrial executives in the audience.

Purchasers of projectors may themselves add other films to the industrial one, thus later building up a projector library.

THE TRIAL INSTALLATION

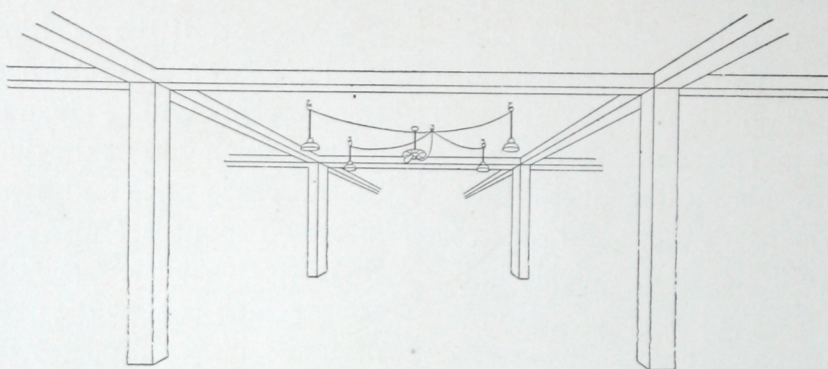
What the Trial Installation Is

An actual installation in a prospect's factory is the most convincing method of demonstrating the value of light for his particular requirements. Trial equipment should be available for lighting a typical twenty foot by twenty foot bay or a floor area of these dimensions. Four 200-watt white bowl Mazda lamps equipped with suitable reflectors should be wired up each with eleven

and to stimulate an interest in better lighting among the workers and the electrical staff.

How to Use a Trial Installation

Select a typical section in the plant, locating the outlets on 10-foot spacings and suspend 9 feet above the floor. About two feet from the reflector make a loop in the wire by the use of friction tape. With wood ceilings,



feet of No. 14 Duplex wire. These should be connected in multiple to a common lead twenty-five feet in length and terminating in an attachment plug. The installation can be serviced by an existing lighting or convenience outlet.

How You Should Use a Trial Installation

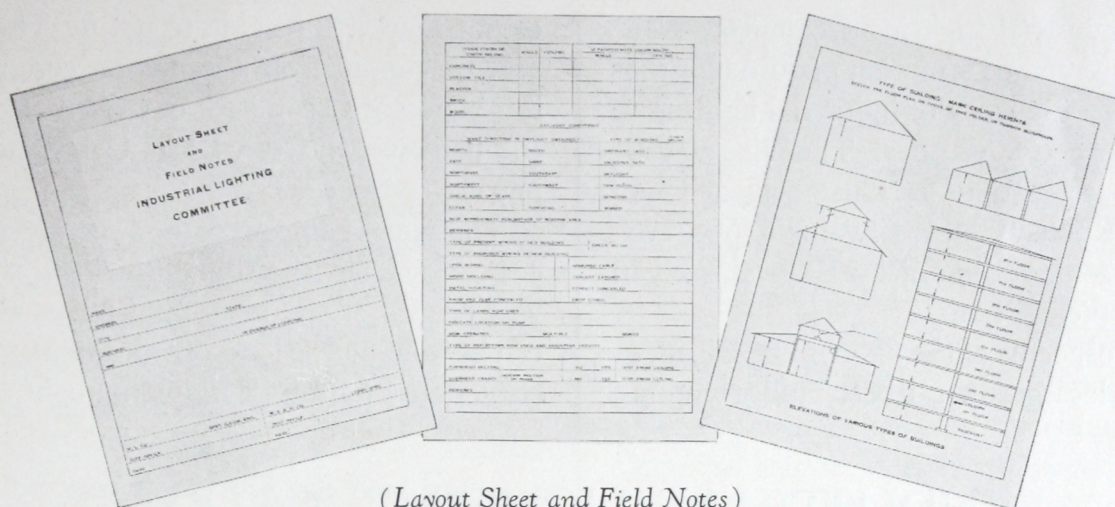
Although the permanent exhibits, lectures and salesmen's efforts will usually be sufficient, it may be necessary in some cases to furnish a trial installation in a prospect's plant. He can then appreciate more fully the advantages of better lighting and will realize that the modern principles he has seen in exhibits and on the screen are not only practical but can actually be accomplished in his own factory. The installation provides an excellent opportunity for entree to the plant

the equipment can be supported by screw eyes. In plants with concrete ceilings, wood strips may have to be mounted on the ceiling, supported by other strips strapped to the columns or posts. However, a small expansion bolt or a rod across sprinkler pipes may serve. The common lead can be connected to the most convenient source of supply. Be sure to use lamps of the correct voltage.

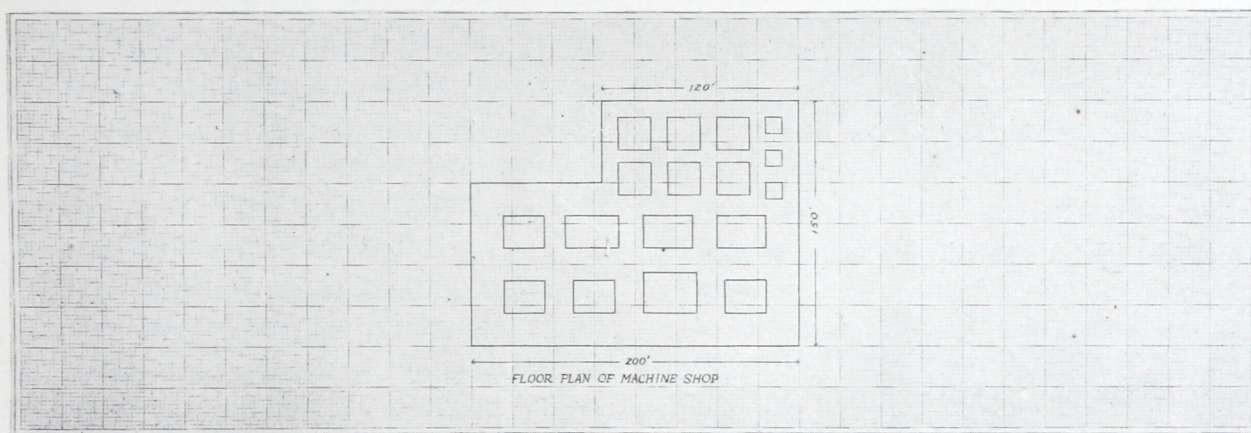
Results You Can Expect

The installation will sell itself not only to the executives and engineers but to the workmen. Those fortunate enough to work under the trial equipment will oppose its removal and other employees will demand similar advantages. The completed sale of a lighting installation should be the result of these demonstrations in the plant.

FIELD NOTES AND SURVEYS



(Layout Sheet and Field Notes)



THE Industrial Lighting Committee will furnish forms for making factory layouts and for the obtaining of field notes of an industrial plant by the local communities. A representative should be sent to the industrial plants in which the executives are interested in being shown the possibilities of better lighting, and with the aid of field notes and layout sheets, he can sketch the layout of the factory rooms and obtain information necessary for recommending proper lighting.

The field notes consist of several sheets of cross-section paper for the factory layout which should be sketched, showing position of machines, present outlets, etc. A questionnaire accompanies the sheet, and if the questions are answered, enough

information will be available for a better lighting plan to be recommended.

After the layout sheets and field notes have been obtained, someone should be designated in the local community to prepare the proper industrial lighting layout for the plant in question.

If it is not possible to prepare the industrial lighting recommendation in the local communities, the layout sheets and field notes should be allocated to manufacturers who are capable of handling this type of work. All of the Mazda Lamp manufacturers and many of the reflector manufacturers have such facilities.

To take care of your needs, an order should be entered for ten per cent of the number of broadsides purchased.

MOTION PICTURE FILM

THE Industrial Lighting Committee plans to have prepared a motion picture film that will carry the story of industrial lighting in a most effective manner. This film may be shown at meetings of Chambers of Commerce, Rotary Clubs, Kiwanis Clubs, etc., and in some communities may be used in motion picture houses.

A prospectus of the film will be issued, so that the local groups can better judge whether

or not they will be able to use it. The film will be supplied on a minimum cost basis, the National Committee to bear the cost of the negative and the Local Committee to pay the cost of the prints.

This film is being prepared at considerable cost. However, the Committee feels that it will be one of the most vital forces which can be used by the local organizations in creating desire for better industrial lighting.

INDUSTRIAL LIGHTING TALKS

IN addition to the complete lectures available for speakers demonstrating the permanent lighting exhibits, and the one accompanying the Brayco film, there will be issued a group of short talks in the nature of ten-minute stories for speakers lecturing without apparatus.

In each geographic division the Geographic Chairman has been provided with a list of names of men who will be available for such local talks. The Chairman, as well as such local speakers, will be provided with sets of these texts.

These talks may be made the basis of selling arguments, useful to a salesman when interviewing an industrial plant customer, or they may be given as brief lectures to

civic clubs and business men's meetings, or extracted portions may be suitable to run as news columns in electrical pages of newspapers.

Two of these short talks have been prepared in a lighter and more popular form, suitable for broadcasting over the radio, and Geographic Chairmen and local organizations are urged to have such talks broadcasted, preferably under the auspices of the local electrical leagues or municipal safety and improvement organizations.

Sets of these lectures are available without cost to communities ordering other material furnished by the Committee and should include their orders on the order blank in the Plan Book. Each community will need only a few of these lectures.

INDUSTRIAL LIGHTING SCHOOLS

IT is planned to utilize a number of permanent exhibits of industrial lighting now available for schools on industrial lighting so that local communities can send representatives to learn more about proper industrial lighting as well as how to operate a lighting demonstration.

At some of these exhibits arrangements

have already been made to have classes in lecture and demonstration of industrial lighting and the committee is arranging for the same at Harrison, Cleveland, Boston, Detroit, Milwaukee, Baltimore and Minneapolis.

Further information will be issued by the Industrial Lighting Committee through the Geographic Chairmen.

THE NATIONAL PRIZES

IN order to stimulate the local groups in the activity, the Industrial Lighting Committee is offering three prizes based upon the work done and the accomplishments of the individual committees. The Industrial Lighting Committee feels that the business accruing from participation in the activity will more than repay the electrical leagues, the central stations, the jobbers and the contractor-dealers for the effort expended; but it is, nevertheless, offering the prizes in order that the industry as a whole will benefit if complete information is available after the campaign is ended. In order to compete for the prizes, the local electrical leagues or local organizations will be obliged to submit a complete report of their activities so that a compilation of these reports will furnish information of value to the electrical industry.

The reports should be written to include the following information, as the judging for the prizes will be based upon these points. All reports must be in the hands of the Industrial Lighting Committee, National Electric Light Association, 29 West 39th Street, New York City, by April 1, 1926. Announcement of the winners will be made on or before the regular 1926 N. E. L. A. convention.

The points of award are:

1. Percentage of Factories in communities brought up to a higher standard of lighting by the activity in the period of the Industrial Lighting Committees' program from September 1, 1925, to March 1, 1926.
2. Excellence of report based upon value to rest of the industry in facts and figures.
3. Evidence of an educational activity to industrial plants, civic

and business groups on Industrial Lighting Economies—that is, Increased Production, Decreased Spoilage, Fewer Accidents, Less Labor Turnover.

The prizes are as follows:

First prize . . .	\$2500
Second prize . . .	1500
Third prize . . .	1000

The prize money will be given to the local electrical league or local organization conducting the activity to be used in any manner that they wish.

The judges of the contest will be announced later.

HOW TO ORDER MATERIAL

Inserted in this copy of the Plan Book is an order form addressed to the Industrial Lighting Committee of the National Electric Light Association, 29 West 39th Street, New York City. This form must be filled out in duplicate and sent to the address given, for prompt shipment.

A check covering the amount of the order should be sent with the order. It will not be possible for the Committee to carry the accounts for service material and bill local committees.

All shipments will be made express collect, except when otherwise requested by the local community.

It is requested that the local communities place their orders promptly, allowing as much time as possible for execution and delivery of materials. Care should be used in filling out order blanks to eliminate the possibilities of error or mistakes when imprinting is involved.

All orders will be filled without delay, and shipments will be made in accordance with the above.

TYPICAL LOCAL PLANS

PLAN OF OPERATION INDUSTRIAL CAMPAIGN FOR GREATER BOSTON

Proposed by THE EDISON ELECTRIC ILLUMINATING COMPANY of Boston

Field

The Edison Company serves forty two cities and towns covering an area of 750 square miles with a population of 1,250,000 inhabitants. It has 4600 industrial establishments on its lines, divided into three classes.

- A 150 industrials purchasing electric service at wholesale rates.
- B 1500 industrials employing over 10 men.
- C 3000 industrials employing less than 10 men.

Cooperation

While an Electric League is in operation it is not in a position to foster the campaign although its support can be counted upon. The progressive electric contractors will cooperate and much help can be depended upon from the jobbing houses and manufacturers' representatives. Cooperation can be expected from the local Chambers of Commerce and Manufacturers' Associations.

The bulk of the work will be done by the Sales Department of the Boston Edison Company.

Finances

This activity will be financed by the Boston Edison Company.

Budget

The following budget is suggested for a mailing list of 4600 names, considering local conditions:

Three folders including imprint	\$450.00
Postage	220.00
Twenty-four local newspaper advertisements, at \$30.00 each	720.00
Motion Picture Film	100.00
Repairs to Demonstration	150.00
Two Bray Portable Projectors	70.00
Booklets (4600)	460.00
Miscellaneous	330.00
Total	\$2,500.00

Campaign List

In order to obtain a complete list of industrials the following sources are consulted:

- 1 List of Wholesale Customers (Edison Company).
- 2 List of General Power Users (Edison Company).
- 3 Directory of Massachusetts Manufacturers.
- 4 Chamber of Commerce Industrial Directory.
- 5 Local Chamber of Commerce Lists.

The names obtained are listed on cards, with the type of industry, number employed, the officers, and party responsible for lighting.

This list is to be divided into three classes:

A Wholesale Industrial Customers	150
B Industrials Employing over 10 men	1500
C Industrials Employing less than 10 men	3000
Total	4650

Preliminary Work

JANUARY, 1925

- 1 Prepare Industrial Lists A and B.
- 2 Telephone to lists A and B to determine party responsible for lighting.
- 3 Mail letters with return postcards to lists A and B informing them of lighting service.

FEBRUARY, MARCH, APRIL, MAY, 1925

- 1 Commence calls on industrial plants, lists A and B.
 - A Find party responsible for lighting.
 - B Explain benefits of proper factory illumination.
 - C Offer lighting service (blue prints and specifications).
 - D Record information regarding lighting condition, attitude, and future possibilities on card.
- If Layout Is Desired:
 - E Obtain measurements of plant and record on Preliminary Survey Sheet.
 - F Prepare blue prints and specifications in office.
 - G Carefully check lighting layout with conditions at plant.

- H Personally present lighting layout to factory executive.
- I Secure permission to obtain bids on equipment.
- J Deliver copy of layout to manufacturer's representative, jobber, or electrical contractor.
- K Maintain contact with factory executive, manufacturer's representative, jobber, or electrical contractor to determine status of job.

JUNE, JULY, 1925

- 1 Obtain Industrial List C.
- 2 Repair Industrial Lighting Exhibit.
(The Boston Edison Company maintains an industrial lighting exhibit at the Massachusetts Institute of Technology).
- 3 Inform jobbers and electrical contractors of plans of campaign by letter and personal call.
- 4 Make arrangements with local Chambers of Commerce, etc., for talks on Industrial Lighting during campaign.
- 5 Make arrangements with local engineering societies for talks on Industrial Lighting during campaign.

AUGUST, 1925

- 1 Check all lists.
- 2 Examine report cards for best prospects.

The Campaign

SCHEDULE OF OPERATIONS

- Aug. 20 Mail Broadside No. 1 to Industrial Lists A, B and C.
All Contractors.
All Jobber Salesmen.
All Engineers.
All Manufacturer's Representatives.
- Aug. 22 Advertisement in local newspapers.
- Aug. 30 Letter to Contractors and Jobber Salesmen explaining Campaign.
- Aug. 31—Sep. 5 Address Jobber Salesmen.

- Sep. 8 Mail special literature to List A.
Start personal calls on List B. Continue to end of campaign.
- Sep. 14 Start personal calls on List A.
- Sep. 14—Nov. 15. Addresses before meetings of engineering and trade associations.
- Sep. 17 Mail Broadside No. 2 to same list as No. 1.
- Sep. 19 Advertisement in local newspapers.
- Oct. 1-30 Continue personal calls to Lists A and B with Bray Projectors.
Make lighting layouts where possible.
Invite executives to Industrial Lighting Exhibit.
Calls by jobbers' salesmen, manufacturer's representatives and contractors on prospects.
Installation of trial units where possible.
- Oct. 8 Mail Broadside No. 3 to same list as No. 1.
- Oct. 10 Advertisement in local newspapers.
- Oct. 19 Letter to Lists A and B with reproduction of lighting layout rendered to plants, tying with Literary Digest advertisement of Oct. 21.
- Nov. 1-30 Continue personal calls on Lists A and B and returned cards from List C.
- Nov. 1 Letters to Jobbers giving progress of campaign.
- Nov. 12 Mail Industrial Lighting booklets to same list as Broadside No. 1.
- Nov. 16 Prepare list of all prospects for distribution to jobbers, contractors, manufacturer's representatives, with copies of lighting layout.
- Dec. 1-30 *General Roundup.*
Personal calls on Lists A, B and C, with Bray Projectors.
Installation of trial units.
Stimulation of jobbers, contractors, etc.
Summarize results.

INDUSTRIAL LIGHTING CAMPAIGN OF THE CINCINNATI ELECTRIC CLUB

SEPTEMBER 1, 1925, TO MARCH 1, 1926

Objectives

There are approximately 4,500 factories of all descriptions in the territory now served by the Union Gas & Electric Company and by its affiliated com-

panies, the Union Light, Heat & Power Company, and the Ohio Gas & Electric Company.

Preliminary surveys indicate that lighting conditions in the vast majority of these plants fall very far

short of what they should be for best production, and that it is extremely unlikely that there is a single one of them so well lighted that it would not profit by improved illumination.

The Electric Club, under direction of R. N. Dedrich, Business Manager, and with the cooperation of the Industrial Sales Division of the Union Gas & Electric Company, will compile a list of the names of these prospective customers in Cincinnati proper.

At the same time, the Industrial Sales Division will undertake to parallel the Cincinnati campaign with special efforts in contiguous territory, such as Hamilton and Middletown, in a way that will at the same time benefit by the interest aroused in Cincinnati, and react beneficially upon it.

Methods

The Electric Club will undertake the clerical and office work of the campaign, as it has done in the Store Lighting Campaign.

The jobber and contractor members of the Club will be asked to lend the services of a total of 10 salesmen, joining forces with the Industrial Sales Division of the Union Gas & Electric Company as in the Store Lighting Campaign, to make the personal calls upon all prospects.

Advertising support for the campaign will be furnished by the Publicity Department of the Union Gas

& Electric Company as provision for most of this advertising support has already been made in the company's program for the balance of this year.

This program calls for a considerable amount of display space in the newspapers, used in the same way as in the Store Lighting Campaign, and also for a series of three letters to all prospects, enclosing folders—these being furnished at cost by the National Industrial Lighting Committee.

In addition to this, it is believed the Electric Club should secure, for the use of the salesmen, 5,000 of the Industrial Lighting booklets published by the National Committee.

The plan of campaign is based upon efforts to secure trial installations covering a space of approximately twenty by twenty feet in each plant. Jobbers will be expected to loan the necessary fixtures complete for this trial installation, and contractors to do the necessary wiring and hang fixtures. Certain contractors have already agreed to do this.

Wherever possible, the trial installation will be located at such a point that the improvement in production directly resulting will be immediately evident to the factory owner.

Efforts will also be made during the campaign to secure opportunities for speakers to address groups or associations of men interested in industrial plants, on the subject of factory lighting.

HOW CLEVELAND TENTATIVELY PLANS TO OPERATE ITS INDUSTRIAL LIGHTING ACTIVITY

The Industrial Lighting Activity in Cleveland will be operated by the Cleveland Electric League and the tentative program includes the following:

A survey of existing conditions will be made by both the lighting service company men and the jobber salesmen to determine the plants which might be classed as prospects. These will then be rated as good, fair or poor in connection with their present lighting equipment. By going to the contractors who do this type of work the league expects to find quite readily those plants which have excellent lighting at the present time and would therefore not be prospects in this campaign. This will enable the league to prevent a waste of time and money on these particular plants.

The second phase of the activity will be an educational campaign which would include a direct mail activity from the Electrical League of Cleveland to the executives of the plants which are on the prospect list. It will also include some newspaper advertising, the use of a traveling demonstration and trial installation equipment so constructed that it might be

moved from plant to plant to show both executives and workmen exactly what the recommendations made by the Electrical League would mean to the lighting conditions in that particular factory. Of course there would be several sets of this equipment.

The Electrical League is equipped to send out trained representatives to give service, layouts, and lighting recommendations to those people who reply to the advertising, and arrangements will be made to give talks before such groups as the local Chamber of Commerce, etc., in order to bring the subject directly before industrial plant executives.

The third phase of the activity will be the direct sales work in which the jobber and contractor dealers will use direct mail to parallel the Electrical League campaign, dividing up the entire League mailing list pro rata among those who wish to get into the activity. This direct mail will be followed up by personal solicitation on the part of the jobbers and contractors and the lighting service company will also be able to do some valuable follow up work in this connection.

Three Broadsides, Sample Invi-
tation to Demonstration
and Order Blanks
Enclosed

THE INDUSTRIAL LIGHTING COMMITTEE



Chairman, J. F. BECKER, The United Electric Light & Power Co.

Treasurer, GEORGE M. MOORE, The United Electric Light & Power Co.

Secretary, L. H. ROSENBERG, Westinghouse Lamp Company.

CENTRAL STATION REPRESENTATIVES

OLIVER HOGUE, Commonwealth Edison Company, Chicago, Ill.
R. H. TILLMAN, Consolidated Gas, Electric & Power Co., Baltimore, Md.
M. C. HUSE, Philadelphia Electric Company, Philadelphia, Pa.
J. DANIELS, Edison Electric Illuminating Co. of Boston, Boston, Mass.
H. M. SAWYER, American Gas & Electric Co., New York, N. Y.
S. D. HEED, Union Gas & Electric Company, Cincinnati, Ohio.
H. J. GILLE, Puget Sound Power & Light Co., Seattle, Wash.
H. M. CRAWFORD, Pacific Gas & Electric Co., San Francisco, Calif.
RALPH NEUMULLER, The United Electric Light & Power Co., New York, N. Y.
C. A. MUSSON, The United Electric Light & Power Co., New York, N. Y.
H. V. HARTMAN, The New York Edison Company, New York, N. Y.
W. T. BLACKWELL, Public Service Electric & Gas Co., Newark, N. J.

LAMP MANUFACTURERS

E. L. CALLAHAN, Westinghouse Lamp Company, New York, N. Y.
P. B. ZIMMERMAN, National Lamp Works, Cleveland, Ohio.
GEORGE C. OSBORN, Edison Lamp Works, Harrison, N. J.
G. H. STICKNEY, Edison Lamp Works, Harrison, N. J.
S. G. HIBBEN, Westinghouse Lamp Company, New York, N. Y.
WARD HARRISON, National Lamp Works, Cleveland, Ohio.

REFLECTOR MANUFACTURERS

ARTHUR MILLER, Ivanhoe Division of The Miller Co., Cleveland, O.
C. O. BAKER, Wheeler Reflector Company, Boston, Mass.
W. D. STEELE, Benjamin Electric Company, Chicago, Ill.
J. S. TRITLE, Westinghouse Electric & Mfg. Co., Mansfield, O.
J. M. HICKERSON, The Miller Company, Meriden, Conn.
W. G. ROWLAND, Nat'l Screw & Mfg. Co., Adams Bagnall Products Division, Cleveland, O.
E. L. BRADBURY, Holophane Glass Co., New York, N. Y.

ELECTRIC SUPPLY JOBBERS

W. E. ROBERTSON, Robertson-Cataract Electric Co., Buffalo, N. Y.

ELECTRICAL CONTRACTORS AND DEALERS

J. R. STRONG, Association of Electragists, New York, N. Y.

INSURANCE COMPANIES

R. E. SIMPSON, Travelers Insurance Co., Hartford, Conn.

GLASSWARE MANUFACTURERS

C. H. FERRIS, Illuminating Glassware Guild, New York, N. Y.

SOCIETY FOR ELECTRICAL DEVELOPMENT

E. W. ROCKAFELLOW, National Pole Company.



COMMITTEE CHAIRMEN

Finance	REX COLE
Advertising	J. M. HICKERSON
Demonstrations and Lectures	S. G. HIBBEN
Technical Publicity	WARD HARRISON

